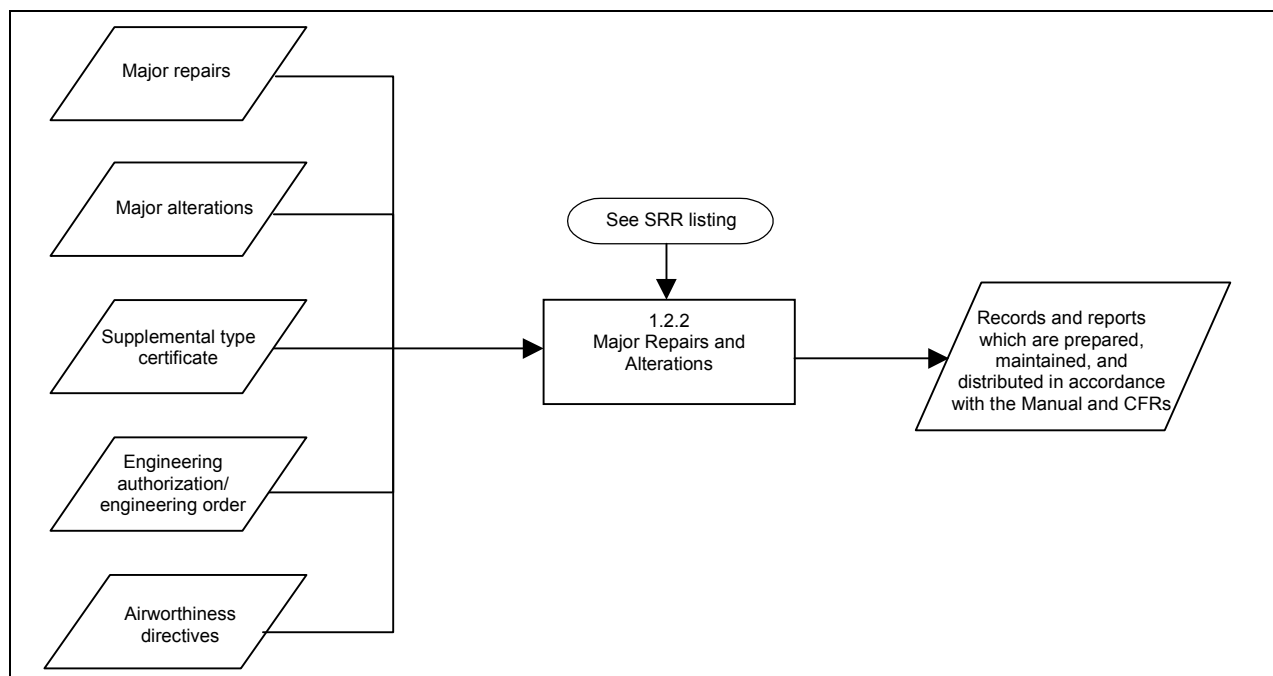


Safety Attribute Inspection (SAI) Job Aid



ELEMENT SUMMARY INFORMATION

Element: 1.2.2 Major Repairs and Alterations

Purpose of this Element (Air Carrier's responsibility): To ensure that an Air Carrier prepares, maintains, transfers, and submits reports of Major Repairs and Alterations in accordance with its policies and procedures.

Objective (FAA responsibility): To determine if the Air Carrier follows its policies, procedures and controls for the Major Repairs and Alterations process.

Inputs:

- Major Repairs
- Major Alterations
- Supplemental Type Certificate
- Engineering Authorization/Engineering Order
- Airworthiness Directives

Outputs:

- Records and reports which are prepared, maintained, and distributed in accordance with the Manual and FARs

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Performance Measures:

- The air carrier prepares a report of major alterations and major repairs within five days of completing a task (major alteration or repair).
- The air carrier submits to the FAA a copy of the report of each major alteration within two days of report completion.
- The air carrier maintains current list of all major alterations by aircraft or component serial number.
- The air carrier has the ability to transfer reports and records when aircraft ownership is transferred.

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SRR:

- CFR 121.379 (b) Authority to Perform and Approve Maintenance, Preventative Maintenance and Alterations
- CFR 121.380(a) Maintenance Recording Requirements
- CFR 121.380a Transfer of Maintenance Records
- CFR 121.707 (b) Alterations and Repairs

Other CFRs and/or FAA Guidance:

- FAA Order 8300.10, Volume 2, Chapter 64, Paragraph 3 “Evaluate Continuous Airworthiness Maintenance Program/Revision”
- CFR 145.79 (b)--Records and Reports
- CFR 43, Appendix B---Recording of Major Repairs and Alterations.
- Refer to appropriate Advisory Circulars

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SRR SPECIFIC INFORMATION

SRR	Intent	
121.379(b)	To ensure that major alterations are completed in accordance with data approved by the Administrator (designee).	<i>Certification: Airworthiness</i> <i>Surveillance: Airworthiness</i>
121.380a	To ensure that the air carrier transfers records of major alterations to the new owner/operator.	<i>Certification: Airworthiness</i> <i>Surveillance: Airworthiness</i>
121.380(a)	To ensure that the air carrier maintains a list of all major alterations on each airframe, aircraft engine, aircraft propeller, and appliance.	<i>Certification: Airworthiness</i> <i>Surveillance: Airworthiness</i>
121.707(b)	To ensure that the air carrier submits a copy of every major alterations report to the FAA and keeps a copy of every major repairs report.	<i>Certification: Airworthiness</i> <i>Surveillance: Airworthiness</i>

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1.2.2 Major Repairs and Alterations

SECTION 1 - RESPONSIBILITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person who is accountable for the quality of the Major Repairs and Alterations process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who is responsible for the quality of the Major Repairs and Alterations process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Major Repairs and Alterations process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who is answerable for the quality of the Major Repairs and Alterations process?	<input type="checkbox"/> YES If yes, provide the name: <input type="checkbox"/> NO If no, explain:
2. Does the person understand the procedures associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the person understand the controls associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the person understand the interfaces associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the person understand the process measurements associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Is the responsibility of this position clearly documented in the air carrier's Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Are the qualification standards for this position clearly documented?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7a. Are the qualification standards for this position appropriate for the duties that are assigned?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the person meet the qualification standards?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the person acknowledge that he/she has responsibility for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
10. Does the person know who has authority to establish and modify the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.2.2 Major Repairs and Alterations

SECTION 2 – AUTHORITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person with the authority to establish and modify the Major Repairs and Alterations process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who has the authority to establish or modify the Major Repairs and Alterations process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Major Repairs and Alterations process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who has authority to establish and modify the air carrier's policies for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If yes, provide the name: <input type="checkbox"/> NO If no, explain:
2. Does the person understand the procedures associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the person understand the controls associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the person understand the interfaces associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the person understand the process measurements associated with the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Is the authority of this position clearly documented in the air carrier's Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Are the qualification standards for this position clearly documented?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7a Are the qualification standards for this position appropriate for the duties that are assigned?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the person meet the qualification standards?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the person acknowledge that he/she has authority for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
10. Does the individual know who has the responsibility for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
11. Are the procedures for delegation of authority clearly documented for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.2.2 Major Repairs and Alterations

SECTION 3 – PROCEDURES ATTRIBUTE

Objective: To determine if the air carrier has documented procedures for accomplishing the Major Repairs and Alterations process.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Major Repairs and Alterations process to ensure that they contain who, what, where, when, and how.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI.
3. Discuss the Major Repairs and Alterations process with appropriate personnel to gain an understanding of the procedures.
4. Observe the Major Repairs and Alterations process to gain an understanding of the procedures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Do written procedures exist to achieve the desired result of the Major Repairs and Alterations process:

1.1 Do written procedures describe how the Air Carrier will maintain records? [SRR 121.380 (a)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.2 Do written procedures describe how the Air Carrier will create and distribute reports? [SRR 121.707 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.3 Do written procedures describe how the Air Carrier will transfer reports? [SRR 121.380a]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.4 Do written procedures require the Air Carrier to prepare a report of all major alterations and major repairs? [SRR 121.707 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.5 Do written procedures require the Air Carrier to submit to the FAA a report of each completed major alteration? [SRR 121.707 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.6 Do written procedures describe how the Air Carrier prepares and distributes reports within the time limits prescribed in the Manual? [SRR 121.707 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.7 Do written procedures require the Air Carrier to obtain the major alterations and major repairs records for all newly acquired aircraft?

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.8 Do written procedures require the Air Carrier to review the major alterations and major repairs records for all newly acquired aircraft?

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

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1.2.2 Major Repairs and Alterations

SECTION 3 – PROCEDURES ATTRIBUTE

2. Do the procedures identify: who, what, where, when and how?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Are the procedures in compliance with the CFR(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Do the procedures conform to other written guidance (E.g., Operations Specifications, FAA Orders, Airworthiness Directives, Advisory Circulars, Handbook Bulletins, Directives, and Manufacturer's Recommendations)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the air carrier have the resources to support the written procedures for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. If alternate procedures exist for use during irregular conditions, do they achieve the same desired results as the primary procedures so that an equivalent level of safety is maintained? (E.g., a manual system used as a result of equipment failure).	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A, No alternate procedures exist for this element
7. Are the procedures published in different manuals relating to the Major Repairs and Alterations process consistent?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the air carrier have a documented method for assessing the impacts of procedural changes to the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.2.2 Major Repairs and Alterations

SECTION 4 – CONTROL ATTRIBUTE

Objective: To determine if checks and restraints are designed into the Major Repairs and Alterations process to ensure a desired result is achieved.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Major Repairs and Alterations process.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI
3. Discuss the Major Repairs and Alterations process with appropriate personnel to gain an understanding of the controls.
4. Observe the Major Repairs and Alterations process to gain an understanding of the controls.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following checks and restraints built into the Major Repairs and Alterations process:

1.1 Does the air carrier verify that reports required by the FAR are prepared within the prescribed time limits contained in its Manual? [121.707 (a, b)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.2 Does the air carrier have signature blocks on reports of major alterations and major repairs?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.3 Does the air carrier check for completeness of all records of major alterations and major repairs including the FAA approved data used to perform major alterations and major repairs? [121.379 (b)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.4 Does the air carrier have a tracking system for submission of major alterations reports? [121.379 (b)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.5 Does the air carrier have and maintain a checklist identifying major repair and major alteration records required to be transferred at the time of sale? [121.380a (a)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.6 Does the air carrier have a tracking system to identify the location of all records required for major alterations and major repairs? [121.379 (b)]	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:
1.7 Does the air carrier have an agreement between the lessee and the lessor identifying the possession status of the records?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	If no or N/A, explain:

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1.2.2 Major Repairs and Alterations

SECTION 4 – CONTROL ATTRIBUTE

1.8 Does the air carrier verify major alterations and major repairs records by examining the related aircraft or component where possible?	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
2. Do the checks and restraints ensure the desired result is achieved for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the air carrier have a documented method for assessing the impacts of any changes made to checks and restraints in the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the air carrier have the resources to support the checks and restraints for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.2.2 Major Repairs and Alterations

SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

Objective: To determine if the air carrier measures and assesses the Major Repairs and Alterations process, to identify and correct problems or potential problems.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Major Repairs and Alterations process.
2. Discuss the Major Repairs and Alterations process with appropriate personnel to gain an understanding of the process measures.
3. Observe the Major Repairs and Alterations process to gain an understanding of the process measures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. <Deleted>
2. Does the air carrier's Major Repairs and Alterations process include the following process measurements?

2.1 The air carrier audits the following items:

2.1.1 The list of major alterations to determine the current status;	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
2.1.2 The timeliness of creating reports of major alterations and major repairs;	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
2.1.3 The timeliness of submitting required reports to the FAA; and	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
2.1.4 The maintenance record to verify completeness and accuracy.	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
3. Does the air carrier document their process measurement methods and results?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Are the air carrier's process measurement methods effective?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the air carrier use their process measurement results to improve their programs?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Are the process measurement results accessible to the FAA?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Does the organization that conducts the process measurement have direct access to the person with responsibility for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the air carrier have the resources to support the process measurement for the Major Repairs and Alterations process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.2.2 Major Repairs and Alterations

SECTION 6 – INTERFACES ATTRIBUTE

Objective: To determine if the air carrier identifies and manages the interactions between the Major Repairs and Alterations process and the other element processes within the air carrier organization.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Major Repairs and Alterations process.
2. Discuss the Major Repairs and Alterations process with appropriate personnel to gain an understanding of the interfaces.
3. Observe the Major Repairs and Alterations process to gain an understanding of the interfaces.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following interfaces identified for the Major Repairs and Alterations process:

1.1 Aircraft Airworthiness Requirements (Element 1.1.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.2 Airworthiness Release or Log Book Entry (Element 1.2.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.3 Maintenance Log/Reporting Requirements (Element 1.2.3)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.4 Maintenance Program (Element 1.3.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.5 Inspection Program (Element 1.3.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.6 RII (Element 1.3.4)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.7 Outsource Organization (Element 1.3.7)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.8 Engineering Major Repairs and Alterations (Element 1.3.9)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A

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1.2.2 Major Repairs and Alterations

SECTION 6 – INTERFACES ATTRIBUTE

1.9 <i>SFAR36 (Element 1.3.12)</i>	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.10 <i>DAS (Element 1.3.13)</i>	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.11 <i>Manual Currency (Element 2.1.1)</i>	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.12 <i>Content Consistency Across Manuals (Element 2.1.2)</i>	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.13 <i>(Manual) Distribution (Element 2.1.3)</i>	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
1.14 <i>(Manual) Availability (Element 2.1.4)</i>	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
2. List any additional interfaces identified:	
3. Are there written procedures for the use of air carrier personnel in the application of these interfaces?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Are there controls to ensure that interfaces occur?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Are the interfaces between the Major Repairs and Alterations process and other processes treated consistently in the Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO